

Montana Department of Transportation
Research Program
August 2006

**EXPERIMENTAL PROJECT
FOR THE EVALUATION OF VARIOUS AGGREGATE BASE PREPARATIONS
(Work Plan)**

Location: Custer County and Rosebud Counties; Glendive District
Highway 59, P-18 (C000018); Milepost 18-24

Project Number: Angela North & South STPP 18-1(9)18

Type of Project: Aggregate Base Preparation Test Sites

Principal Investigator: Craig Abernathy: Experimental Projects Manager
Geno Liva, P.E.: Bituminous Engineer

Date of Construction: Estimated late August 2006

Objective

Creating premium road base out of troublesome aggregates or soils is part of a successful formula in building superior performing pavements. In this effort, the Montana Department of Transportation is initiating an experimental trail of various aggregate base preparations in effort to determine effectiveness of these treatments for potential use in future road construction projects.

Experimental Design



This project will incorporate six one-mile sections beginning at approximately milepost 18 and ending at milepost 24. These sections encompass two controls and four test sections as follows:

1. Gravel only (control)
2. Magnesium Chloride and Tack coat (control)
3. SS1 and Tack coat; pugged at 100mm
4. SS1 only, pugged at 100mm
5. Granular Base Stabilization (GBS) SemMaterials (topical)
6. PrimePlus MRC (topical)

A project section layout is attached to this document.

Evaluation Procedures

Material, Research, and Construction staff will be present onsite during the placement of the sections to document and assess each treatments performance on issues such as ease of consolidation, rollout, raveling and any other constructability concerns. Information from all participants will be collected to complete the initial report on constructability performance on each section. Once paved these section will be delineated for ongoing pavement analysis.

Estimated Project Cost

Pending

Evaluation Schedule

A construction report consensus relating to the initial effectiveness of each treatment will be published. Research staff will monitor pavement performance of each section for a period of five years annually, with every year after that reviewed informally, up to ten years. This is in accordance with the Department's "Experimental Project Procedures". Delivery of the construction evaluation, and annual reports are required as well as a final project report (responsibility of the Research Section).

2006:	Construction	September installation/construction report on initial application(s) performance
2006-2011:	Annual Evaluations	Annual reports on pavement performance
2011:	Final Evaluation	Final Report
2011:	Annual Evaluations	Informal, optional evaluation based on longevity of treatments